



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Professor Henry, who is one of the ablest and most influential Experiment Station Directors in the country, treats his subject under three headings, dealing respectively with plant growth and animal nutrition, feeding-stuffs, and feeding farm animals. From his own large experience, and the voluminous literature of the Experiment Stations, he has compiled in a readily accessible but condensed form much information concerning the transmutations which organic matter undergoes from its origin in the leaves of plants to its return to the soil as vegetable or animal refuse. T.

ZOOLOGY.

The Sea Otter.—Among North American mammals doomed to practical extermination must be included the sea otter (*Latax lutris*), unless the most rigid restrictions be speedily enforced for its preservation. Formerly this animal was more or less abundant along nearly the whole Pacific coast of North America, from the Pribilof and Aleutian Islands south to northern Lower California. Indeed, the islands of southern California and northern Lower California were, about the beginning of the present century, famous hunting grounds for the sea otter. Another portion of the seaboard where great numbers were killed was the coast of Oregon and Washington, where many were taken as late as 1876. Thence northward, also, to the Aleutian Islands they were killed in large numbers for many years. Only small remnants here and there, however, at present exist along this whole stretch of coast, their extermination, from a commercial point of view, having long since been accomplished. Even in Alaskan waters, during the last half of the eighteenth century, their indiscriminate slaughter had so far reduced their numbers that toward the close of this period the then newly formed Russian American Company placed restrictions upon the number allowed to be taken, and enforced other regulations by which the females were spared, and care insured against needlessly alarming these exceedingly timid and suspicious animals. The early wholesale, unrestricted destruction of the sea otter exactly parallels that of the fur seals throughout their range, except where accorded government protection, and with the same sad result of practical extinction.

Their numbers have now become so alarmingly reduced, even in their last stronghold, the Aleutian Islands, notwithstanding attempted government restriction, that more serious measures for

their protection are now contemplated, not only in behalf of the sea otter, but more especially in behalf of the natives of the Aleutian Islands, who are almost entirely dependent upon the sea otter for the necessities of life. The present status of this animal has hence been made the subject of a report¹ by Capt. C. L. Hooper, of the Revenue Cutter Service, to the U. S. Treasury Department, from which it appears that none now exist on the islands or shores of the mainland north of the Alaskan Peninsula; at least the animal is not now hunted outside of the Aleutian Islands. Captain Hooper states that no reliable record of the sea-otter catch is obtainable prior to 1873. He presents, however, a tabular statement of the approximate number taken annually at the different islands by the natives from 1873-96 inclusive. The total catch for this period of twenty-four years is about 58,000, the largest number, 4152, being taken in 1885, and the smallest, 598, in 1894. This does not, however, include the considerable number killed by white hunters which yearly visit the otter banks. It is, however, a trifling number in comparison with the annual catches of a century ago.

Under this constant persecution the sea otter has not only greatly decreased in numbers, but has notably changed its habits. To quote from Captain Hooper's Report: "Being constantly harassed, clubbed, and shot on shore, caught in nets by white men, their hauling grounds made uninhabitable by the camp fires of the hunters and defiled by fisheries and the decaying bodies of their slaughtered companions, the sea otter of the Aleutian Islands has not only decreased in numbers, but has actually changed its habits. It no longer comes out upon the land to feed, rest, or give birth to its young. A floating raft of kelp serves as its only resting place and banks of thirty fathoms of water are its feeding grounds. Even there it is hunted and harassed by hunting schooners from March until August. Having been driven from the shore, it is being exterminated on the sea by a fleet of hunting schooners, and the native hunters of the Aleutian Islands are being deprived of their chief means of subsistence. In addition to its change of habits and decrease in numbers, the range of the otter is very much reduced."

¹ A Report on the Sea-Otter Banks of Alaska, Range and Habits of the Sea Otter. — Its Decrease under American Rule, and some of the Causes. — Importance of the Sea Otter to the Natives of Alaska inhabiting the Aleutian Islands. — Proposed Regulations for 1898. By C. L. Hooper, Captain R. C. S., Commanding Bering Sea Patrol Fleet, 1897. Washington, Government Printing Office, 1897. *Treas. Depart. Doc. No. 1977.* 8vo, 1-35 pp., with map.

Captain Hooper urges the enforcement of more stringent regulations respecting sea-otter hunting, not only for the purpose of preserving "the most beautiful and valuable fur-bearing animal in the world, but to preserve it for the benefit of the natives who have been dependent upon it for more than a century, and who will be reduced to suffering and want without it."

J. A. ALLEN.

Pacific Coast Annelids. — In the recent paper¹ by Prof. H. P. Johnson, of the University of California, we have the promise of an extension of our knowledge of the marine annelids of the western coast of North America that will undoubtedly be welcomed by students of marine zoology. This first contribution deals only with five families of the order Polychæta, *viz.*, the Euphrosynidæ, the Amphinomidæ, the Palmyridæ, the Polynoidæ, and the Sigalionidæ. The scope of the work which Dr. Johnson has laid out for himself, and the beginning of the execution of which is now presented, may be stated in his own words: "It is certainly an interesting reflection of the haphazard nature of zoological exploration to find that much more is known about the Polychæta in the most remote regions of the earth, in the farthest north and the farthest south, in the East Indies and in the South Seas, than along the easily accessible shores of a great civilized nation. No apology, therefore, need be offered for the preponderance of attention here given to such preliminary matters as descriptions of new species, distribution, habits, and other details of the natural history of the group. It is the writer's intention to present the entire order Polychæta as represented on our shores thus in outline, and concurrently or subsequently to fill in the picture with as much of embryological and histological detail as possible. The present publication is in every sense a *prodromus* of a more extensive work, which will require many years to complete."

Eighteen species in all are treated in the paper, thirteen of which are new to science. They are as follows:

Euphrosynidæ: *Euphrosyne aurantiaca*, sp. nov., *Euphrosyne arctica*, sp. nov.; Amphinomidæ: *Eurythoë californica*, sp. nov.; Palmyridæ: *Chrysopetalum occidentale*, sp. nov., HETEROPAË, gen. nov., *Heteropale bellis*, sp. nov.; Polynoidæ: POLYNOË Savigny (Sens. ext.) (including *Lepidonotus* Leach, *Polynoë* Savigny, and *Halosydna* Kinberg), *Polynoë squamata* (L.) Aud. et M.-Edw., *Polynoë brevisetosa* Kinberg, *Polynoë*

¹ Johnson, H. P. A Preliminary Account of the Marine Annelids of the Pacific Coast, with Descriptions of New Species. *Proc. Calif. Acad. Sci.*, Ser. 3, zool., vol. i, No. 5, 1897, pp. 153-190, Pls. V-X.